



EINLADUNG ZUM KOLLOQUIUM

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Continuity in nature and mathematics: Du Châtelet and Boscovich

The law of continuity was a Leibnizian principle in eighteenth century physics, according to which all change in nature takes place gradually. However, it also had an interpretation in mathematics: it was taken to follow from the law of continuity that all curves described by a single mathematical function are continuous. Focusing on the work of Emilie Du Châtelet and Roger Boscovich, I will show how the fact that the law of continuity was taken to apply both to nature and to mathematics provided a foundation for the applicability of mathematics to nature; it ensured that physical processes could be described by mathematical functions, and that the rate of change of physical quantities could be described by differential equations.

However, Du Châtelet and Boscovich encountered similar problems with the claim that all curves described by a single mathematical function are continuous, which threatened to undermine the correspondence between nature and mathematics with respect to continuity.

Marij van Strien studied physics at Utrecht University, followed by a master in history and philosophy of science. In 2014, she obtained her PhD at Ghent University; her PhD research focussed on the history of determinism and causality in classical physics, between the eighteenth and the early twentieth century. After a brief period at the Max Planck Institute for the History of Science in Berlin, she is now at the University of Wuppertal since October 2015.

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18 c.t. Uhr

Raum N.10.20

Thomas Heinze
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